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Preparation of Educational and Technological Documents in Teaching Future Engineers in "Materials Science" and "Construction Materials Technology"

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Abstract: *The article covers the issues of preparing educational and technological documents and setting educational goals in the teaching of "Materials Science" and "Technology of Construction Materials" to future engineers.*

Keywords: *Technological, document, purpose, task, requirement, material, tool, equipment, device, device, operation.*

It is known that the development of techniques and technologies in various branches of industry is determined by the criterion of production of high-quality and cheap, competitive products. The role of the engineering industry in fully satisfying the growing material and spiritual needs of our people is great. Because the development of all areas depends on the level of development of machine building, and the power of the country increases accordingly.

If the industry is equipped with modern, improved techniques and technologies, it is possible to produce products that meet world standards and compete with the products produced by advanced countries. For this, along with the improvement of the existing technological processes, it is necessary to widely attract modern technologies and investments from developed countries to our industry.

It is important to consider these tasks when teaching future engineers the subject of "Materials Science" and "Technology of Construction Materials" as well as preparing educational and technological documents of the subject and setting educational goals.

Educational-technological documents include the content, character, requirements for the task being performed, materials, equipment, equipment and devices, the content of labor operations and their consistency, as well as methods of organizing work, possible errors and shortcomings, and methods of their elimination. contains information about The amount of this information may vary depending on the level of preparation of students.

One of the most important ways to increase the effectiveness of industrial education classes is to provide students with written instructions. Written instruction is the guidance of instructional-methodical documents that contain information and instructions necessary for students to perform exercises or

educational tasks. Along with posters, drawings, and other visual aids, instructional maps can be used to provide written instruction to students.

Roadmaps may vary in content, but they will necessarily show consistency in the performance of an exercise or job, and provide brief instructions on labor costs, the nature, characteristics, and specifics of work or work methods.

In the teaching of "Material Science" and "Technology of construction materials", it is mainly used in the process of studying operations, and the guidance-technological maps are used in the execution of complex works in the preparation of details or products.

The roadmap will look like this:

Exercise consistency (what to do)	Instructions (how to do it)	Students self-control (how to check the correct execution of the action and its results)

The content of the instructional-technological map is presented in the following table:

Sketches on the transition	The name of the operations	Equipment	Devices	Tools		
				cutter	dimensional, helper	Guidance, instructions on the performance of work

When studying the theoretical and practical importance of tasks assigned to students in the process of mastering the subject, the following should be followed:

- the fact that the work being performed is aimed at finding a solution to the actual problems encountered in the future engineer's work;
- clear determination of the purpose of the work and the expected results;
- coverage of the technology for solving the given problem;
- that the performance of the work has theoretical and practical significance;
- independent and creative approach of each student in performing work.

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